a heat sink located in said interior volume, said heat sink being capable of drawing heat from a vertical cavity surface emitting laser mounted on said heat sink,

a plurality of vertical cavity surface emitting lasers, at least some of said vertical cavity surface emitting lasers being capable of emitting light having a wavelength in the range of about 200 nanometers to about 700 nanometers, at least two of said vertical cavity surface emitting lasers being mounted on said heat sink without any module physically isolating them from each other,

a thermoelectric cooler located on said heat sink, said thermoelectric cooler experiencing a decrease in temperature when exposed to a voltage,

an air entrance, an air exit, and an interior airflow path through said heat sink, said airflow path permitting air to enter said heat sink through said air entrance, absorb heat from said heat sink, and exit said heat sink through said air exit,

air located within said enclosure,

a fan within said enclosure for bringing air into said air entrance and forcing air through said airflow path and through said air exit,

an electrical connection between at least two of said vertical cavity surface emitting lasers,

an AC/DC converter, and

an electrical connection between said AC/DC converter and said vertical cavity surface emitting lasers.

34. A device as recited in claim 33 wherein at least one of said vertical cavity surface emitting lasers includes a substrate on which epitaxial layers are grown.

35. A device as recited in claim 34 further comprising a buffer layer located on said substrate, said buffer layer serving to mitigate differences in material properties between said substrate and other epitaxial layers.

36. A device as recited in claim 35 further comprising:

a first cladding layer serving to confine electron movement within the chip, said first cladding layer being adjacent said buffer layer,

an active layer, said active layer emitting light when electrons jump to a valance state,

a second cladding layer, said second cladding layer positioned so that said active layer lies between cladding layers,

a first and a second reflective layer, each of said first and second reflective layers being located on opposite sides of said active layer, said reflective layers serving to reflect light emitted by said active layer, and

a contact layer on which an electron may be mounted for powering said semiconductor.

37. A device as recited in claim 34 wherein said substrate is selected from the group consisting of Si, GaAs, GaN, InP, sapphire, SiC, GaSb, InAs.

38. A device as recited in claim 34 wherein at least one of said epitaxial layers includes a material selected from the group consisting of GaN, AlGaN, AlN, AlGaN, GaInN, and GaInN.

39. A device as recited in claim 34 further comprising:

a luminous powder coating on the interior of said enclosure.

40. A semiconductor light bulb comprising:

an enclosure, said enclosure being fabricated from a transparent material through which visible light may pass, said enclosure being generally impermeable to gas,

a base to which said enclosure is mounted, said base including a fitting of appropriate shape for insertion into a light bulb socket,

an interior volume within said enclosure,

a heat sink located in said interior volume, said heat sink being capable of drawing heat from a vertical cavity surface emitting laser mounted on said heat sink,

a plurality of vertical cavity surface emitting lasers, at least some of said vertical cavity surface emitting lasers being capable of emitting light having a wavelength in the range of about 200 nanometers to about 700 nanometers, at least two of said vertical cavity surface emitting lasers being mounted on said heat sink without any module physically isolating them from each other,

a thermoelectric cooler located on said heat sink, said thermoelectric cooler experiencing a decrease in temperature when exposed to a voltage,

an air entrance, an air exit, and an interior airflow path through said heat sink,

said air entrance and air exit being proximate a fitting for electrical connection to a light bulb socket,

said airflow path proceeding from said air entrance toward the top of the bulb, turning 90 degrees to move laterally a predetermined distance, then turning 90 degrees to move down toward the bottom of the bulb, and out said air exit,

said airflow path permitting air to enter said heat sink through said air entrance, absorb heat from said heat sink, and exit said heat sink through said air exit,

air located within said enclosure,

a fan within said enclosure for bringing air into said air entrance and forcing air through said airflow path and through said air exit,

an electrical connection between at least two of said vertical cavity surface emitting lasers,

an AC/DC converter,

a fitting for electrical connection to a light bulb socket,

electrical connection between said AC/DC converter and said vertical cavity surface emitting lasers, and

electrical connection between said fitting and said AC/DC converter.

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Remarks

STATUS OF CLAIMS

The status of the claims is as follows:

CLAIMS	STATUS
1-32	Cancelled without prejudice.
33-40	Newly added to distinguish over prior art. Support found at least in specification paragraphs 32-71 and Figure 1, 3a, 3b, 3f, 3h, 6 and 11.

DRAWINGS

Proposed changes to the drawings are attached. If the Examiner is in agreement with these proposed changes, then formal drawings will be submitted.